इंटरनेट मानक

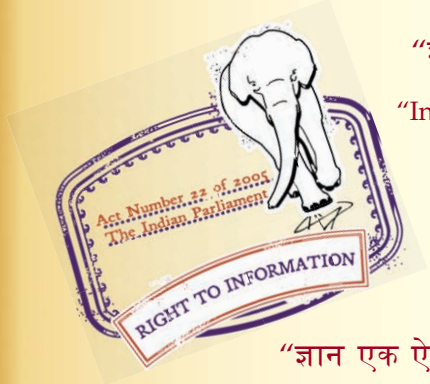
Disclosure to Promote the Right To Information

Whereas the Parliament of India has set out to provide a practical regime of right to information for citizens to secure access to information under the control of public authorities, in order to promote transparency and accountability in the working of every public authority, and whereas the attached publication of the Bureau of Indian Standards is of particular interest to the public, particularly disadvantaged communities and those engaged in the pursuit of education and knowledge, the attached public safety standard is made available to promote the timely dissemination of this information in an accurate manner to the public.

"जानने का अधिकार, जीने का अधिकार"
Mazdoor Kisan Shakti Sangathan
"The Right to Information, The Right to Live"

"पुराने को छोड नये के तरफ"
Jawaharlal Nehru
"Step Out From the Old to the New"

IS 1668 (1975): Lozenges [FAD 16: Foodgrains, Starches and Ready to Eat Foods]



"ज्ञान से एक नये भारत का निर्माण"
Satyanarayan Gangaram Pitroda
"Invent a New India Using Knowledge"

"ज्ञान एक ऐसा खजाना है जो कभी चुराया नहीं जा सकता है"
Bhartṛhari—Nītiśatakam
"Knowledge is such a treasure which cannot be stolen"

BLANK PAGE

PROTECTED BY COPYRIGHT

IS : 1668 - 1975
Reaffirmed 2010

Indian Standard

SPECIFICATION FOR LOZENGES

(Second Revision)

First Reprint JANUARY 1988

UDC 664.144

© *Copyright* 1976

BUREAU OF INDIAN STANDARDS
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
NEW DELHI 110002

Gr 2 *January* 1976

AMENDMENT NO. 1 JANUARY 1979

TO

IS:1668-1975 SPECIFICATION FOR LOZENGES

(Second Revision)

Alteration

[*Page 4, clause 2.2, Sl No.* (9)] - Substitute the following for the existing matter:

'9) Acidulants, food grade;'

(AFDC 31)

Reprography Unit, BIS, New Delhi, India

AMENDMENT NO. 2 NOVEMBER 1995
TO
IS 1668 : 1975 SPECIFICATION FOR LOZENGES

(Second Revision)

(*Page* 4, *clause* **2.2**) — Substitute the following for the existing at the corresponding places:

'9) Citric acid, tartaric acid or malic acid;

12) Proteins and protein isolates;

17) Vitamins and minerals;

18) Lubricants such as starch, calcium, magnesium or sodium salts of stearic acid, talc (not exceeding 0.2 percent by mass) and mineral oil, food grade (not exceeding 0.2 percent by mass)'

Add the following optional ingredients at the end:

22) Jaggery, *BURA* sugar, *KHANDSARI*, sorbitol, liquid glucose, *GUR*;

23) Edible starches;

24) Permitted emulsifying and stabilizing agents;

25) Stearic acid (food grade); and

26) Glycerine, food grade

(*Page* 5, *clause* **4.1**, *first sentence*) — Substitute the following for the existing:

The material, if wrapped shall be wrapped in plain or printed cellulose film, waxed paper, aluminium foil, polyethylene or other food grade thermoplastic films conforming to the relevant Indian Standard Specification.'

(FAD 15)

Reprography Unit, BIS, New Delhi, India

Indian Standard

SPECIFICATION FOR LOZENGES

(Second Revision)

Bakery and Confectionery Sectional Committee, AFDC 31

Chairman	*Representing*
SHRI R. B. RAO	Britannia Biscuit Company Limited, Bombay
Members	
SHRI G. S. BAINS	Punjab Agricultural University, Ludhiana
SHRI B. S. BHATIA	Defence Food Research Laboratory, Mysore
SHRI T. K. CHAKRABORTY (*Alternate*)	
SHRI D. S. CHADHA	Central Committee for Food Standards, Ministry of Health, New Delhi
CHAIRMAN	Technical Standardization Committee (Foodstuffs), Ministry of Agriculture & Irrigation, New Delhi
SECRETARY (*Alternate*)	
SHRI SURESH CHANDER DUBEY	Institute of Agriculture, School of Baking, Anand
SHRI M. M. PATEL (*Alternate*)	
SHRI R. N. GHATAK	Indian Yeast Company Ltd, Calcutta
SHRI R. RAJAMANI (*Alternate*)	
SHRI H. R. S. IYENGAR	Parry's Confectionery Limited, Madras
SHRI E. K. JAYANARAYANAN	Mohan Meakin Breweries Ltd, Ghaziabad (UP)
SHRI S. K. CHOPRA (*Alternate*)	
SHRI P. C. JOSHI	Modern Bakeries (India) Ltd, Delhi
DR V. K. MEHROTRA (*Alternate*)	
SHRI K. B. KALE	Brady & Morris Engineering Company Ltd, Bombay
SHRI N. B. CHOUDHARY (*Alternate*)	
SHRI B. K. KHANNA	Institute of Hotel Management, Catering & Nutrition, New Delhi
SHRI M. R. G. MENON	Indian Sugar Mills' Association, Calcutta
SHRI J. J. PANT (*Alternate*)	
SHRI G. K. NOON	Royal Fancy Sweet-Meat Saloon, Bombay
SHRI S. RAMASWAMY	Directorate General of Technical Development, New Delhi
SHRI I. K. KAPUR (*Alternate*)	

(*Continued on page* 2)

© *Copyright* 1976

BUREAU OF INDIAN STANDARDS

This publication is protected under the *Indian Copyright Act* (XIV of 1957) and reproduction in whole or in part by any means except with written permission of the publisher shall be deemed to be an infringement of copyright under the said Act.

(*Continued from page* 1)

Members	*Representing*
SHRI M. G. SATHE	Indian Confectionery Manufacturers' Association, New Delhi; *and* Federation of Biscuit Manufacturers of India, Delhi
SHRI S. N. MAHESHWARI (*Alternate*)	Indian Confectionery Manufacturers' Association, New Delhi
SHRI F. M. KEWALRAMANI (*Alternate*)	Federation of Biscuit Manufacturers of India, Delhi
COL K. SEETARAM	Quartermaster General's Branch, Army Headquarters
LT-COL O. P. KAPUR (*Alternate*)	
SHRI H. A SHAH	Daurala Sugar Works, Daurala (Distt Meerut)
SHRI L. N. MATHUR (*Alternate*)	
SHRI J C. SHAH	Monita Baking Corporation, Bombay
SHRI PANKAJ V. SHAH (*Alternate*)	
SHRI PESI M. SHAW	Federation of Hotel & Restaurant Association of India, New Delhi
SHRI V. K. A. MENON (*Alternate*)	
SHRI S. R. SHURPALEKAR	Central Food Technological Research Institute (CSIR), Mysore
SHRI S. B. SINGH	Public Analyst, Government of Uttar Pradesh, Lucknow
SHRI D. V. TANDON	Society of Indian Bakers, New Delhi
SHRI R. K. VISSANJI	Roller Flour Millers' Federation of India, New Delhi
SHRI S P. VIRMANI (*Alternate*)	
SHRI T. PURNANANDAM, Deputy Director (Agri & Food)	Director General, BIS (*Ex-officio Member*)

Secretary

DR R. B. MATHUR
Deputy Director (Agri & Food), BIS

Indian Standard

SPECIFICATION FOR LOZENGES

(Second Revision)

0. FOREWORD

0.1 This Indian Standard (Second Revision) was adopted by the Indian Standards Institution on 3 October 1975, after the draft finalized by the Bakery and Confectionery Sectional Committee had been approved by the Agricultural and Food Products Division Council.

0.2 Lozenges (as different from medicated lozenges or others with special claims) are confections mainly made out of pulverized sugar or icing sugar with certain binding materials and lubricants with the addition of suitable flavours and colours. Powdered spices or extracts of spices are also added in the preparation of some varieties of lozenges. These are generally made from cold mixing which means that no preliminary boiling or cooking of the ingredients is required. These confections are produced either as cut goods from a sheet of dough and air-dried or they might be held under pressure so as to form a hard cohesive confection. The compressed lozenges are produced by cold mixing and wet granulation or slugging procedure.

0.3 This standard was initially published in 1960. In its first revision in 1972, an enlarged list of optional ingredients was included, and limit for acid insoluble ash modified. In addition, provisions for limits of sulphur dioxide, arsenic, lead, copper, zinc and tin were also incorporated. The Committee responsible for the formulation of this standard observed that there was a certain amount of confusion with regard to the scope of this specification. Therefore, with a view to removing any ambiguity and to make the 'scope' explicit and clear, the technical committee decided to issue this second revision. In this revision the 'scope' has been modified to embrace compressed lozenges also. Requirements for various characteristics have been reviewed and verified, the list of optional ingredients further enlarged.

0.4 While formulating the standard, the Sectional Committee responsible for its preparation, took into consideration the prevailing methods for the manufacture of lozenges in India and the available data on their composition. However, this standard is subject to the restrictions imposed under the Prevention of Food Adulteration Act, 1954 and Rules framed thereunder, wherever applicable.

0.5 For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS : 2-1960*. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

1. SCOPE

1.1 This standard prescribes the requirements and methods of test for lozenges.

1.1.1 This standard applies to lozenges produced either by cutting sheet dough or by holding the mix under pressure.

2. INGREDIENTS

2.1 Essential Ingredients

2.1.1 *Sugar* — Pulverized sugar obtained by powdering vacuum pan sugar conforming to IS : 498-1970†, or refined sugar conforming to IS : 1151-1969‡ or icing sugar conforming to IS : 1152-1958§, shall be used.

2.1.2 *Binding Materials* — Edible gelatin, edible gums, liquid glucose or dextrins shall be used in binding materials.

2.2 Optional Ingredients — In addition to the above ingredients, the following may also be added to the mix:

1) Ginger powder or extract;
2) Cinnamon powder or extract;
3) Aniseed powder or extract;
4) Caraway powder or extract;
5) Cardamom powder or extract;
6) Cocoa powder or extract;
7) Coffee extract or essence;
8) Edible common salt;
9) Citric or tartaric acid;
10) Sodium bicarbonate;
11) Dextrose or dextrose hydrate;
12) Proteins;
13) Milk products;

*Rules for rounding off numerical values (*revised*).
†Grading for vacuum pan sugar (plantation white) (*third revision*).
‡Specification for refined sugar (*first revision*).
§Specification for icing sugar.

14) Nut products;
15) Honey or invert syrup;
16) Malt syrup;
17) Vitamins;
18) Lubricants, such as starch, calcium, magnesium or sodium salts of stearic acid, talc (not exceeding 0·2 percent),
19) Proprietary food powders or articles;
20) Peppermint oil or other essential oils or flavouring essences; and
21) Edible food colours.

3. REQUIREMENTS

3.1 General — The lozenges shall be made in any form or size as required by the purchaser. They shall be hard but smooth eating and shall also have a good snap. They shall not be damp or fragile. They shall be of a pleasant taste and shall readily dissolve in the mouth. They shall also be free from adulterants and any harmful material.

3.2 The material may contain antioxidants, emulsifiers, flavours and colours, permitted under Prevention of Food Adulteration Rules, 1955. The total quantity of colour added shall not exceed 200 mg/kg of the material.

3.3 Hygienic Conditions — The product shall be processed, packed, and stored under hygienic conditions (*see* IS : 5059-1969*).

3.4 Lozenges shall also comply with the requirements given in Table 1.

4. PACKING AND MARKING

4.1 Packing — The material if wrapped shall be in plain or printed cellulose film, waxed paper, aluminium foil, polyethylene or other flexible packaging materials. In the case of printed packaging material, the printing ink shall not come into direct contact with the lozenges. If the printing ink comes in contact it shall be non-toxic. The wrapped or unwrapped material shall be bulk packed or further packed in clean, reasonably airtight and sound containers. Such containers shall be made of tinplate, glass, plastics, thermoplastic material, moistureproof paper, cellulose film or any other suitable flexible packaging material.

*Code for hygienic conditions for large scale biscuit manufacturing units and bakery units.

TABLE 1 REQUIREMENTS FOR LOZENGES

(*Clause* 3.4)

Sl No.	Characteristic	Requirement	Method of Test (Ref to Clause No. of IS : 6287-1971*)
(1)	(2)	(3)	(4)
i)	Moisture, percent by mass, *Max*	3·0	4
ii)	Sulphated ash, percent by mass, *Max*	3·0	5
iii)	Acid insoluble ash, percent by mass, *Max*	0·2	6
iv)	Sucrose, percent by mass, *Min*	85 0	8
v)	Sulphur dioxide, mg/kg, *Max*	350	11
vi)	Arsenic, mg/kg, *Max*	1·0	12
vii)	Lead, mg/kg, *Max*	2 0	13
viii)	Copper, mg/kg, *Max*	5	14
ix)	Zinc, mg/kg, *Max*	5	15
x)	Tin, mg/kg, *Max*	5	16

NOTE — Qualitative tests may precede the determinations of characteristics (vi) to (x).

*Method of sampling and analysis for sugar confectionery.

4.2 Marking — The following particulars shall be marked or labelled legibly and indelibly on each container:

a) Name of material;

b) Name of manufacturer;

c) Batch or code number;

d) Net mass; and

e) The statement: 'Permitted colours and antioxidants used', when used.

NOTE — Containers having less than 60 g may not be marked with the particulars mentioned under **4.2**. Containers having more than 60 g and less than 120 g shall be marked with the particulars given under **4.2** (a), (b) and (e) but may not be marked with the particulars under **4.2** (c) and (d).

4.2.1 Each container may also be marked with the Standard Mark.

NOTE — The use of the Standard Mark is governed by the provisions of the Bureau of Indian Standards Act, 1986 and the Rules and Regulations made thereunder. The Standard Mark on products covered by an Indian Standard conveys the assurance that they have been produced to comply with the requirements of that standard under a well defined system of inspection, testing and quality control which is devised and supervised by BIS and operated by the producer. Standard marked products are also continuously checked by BIS for conformity to that standard as a further safeguard. Details of conditions under which a licence for the use of the Standard Mark may be granted to manufacturers or producers may be obtained from the Bureau of Indian Standards.

5. SAMPLING

5.1 Representative samples of the material shall be drawn as prescribed in 3 of IS : 6287-1971*.

6. TESTS

6.1 Tests shall be carried out as prescribed in the appropriate clauses specified in col 4 of Table 1.

6.2 Quality of Reagents

6.2.1 Unless otherwise specified, pure chemicals and distilled water (*see* IS : 1070-1960†) shall be employed in the tests.

NOTE — 'Pure chemicals' shall mean chemicals that do not contain impurities which affect the results of analysis.

*Methods of sampling and analysis for sugar confectionery.
†Specification for water, distilled quality (*revised*).

BUREAU OF INDIAN STANDARDS

Headquarters :

Manak Bhavan, 9 Bahadur Shah Zafar Marg, NEW DELHI 110002

Telephones : 3 31 01 31, 3 31 13 75 Telegrams : Manaksanstha
(Common to all Offices)

Regional Offices :	*Telephone*
*Western ; Manakalaya, E9 MIDC, Marol, Andheri (East), BOMBAY 400093	6 32 92 95
†Eastern : 1/14 C. I. T. Scheme VII M, V. I. P. Road, Maniktola, CALCUTTA 700054	36 24 99
Northern : SCO 445-446, Sector 35-C CHANDIGARH 160036	2 18 43 3 16 41
Southern : C. I. T. Campus, MADRAS 600113	41 24 42 41 25 19 41 29 16
Branch Offices :	
Pushpak,' Nurmohamed Shaikh Marg, Khanpur, AHMADABAD 380001	2 63 48 2 63 49
'F' Block, Unity Bldg, Narasimharaja Square, BANGALORE 560002	22 48 05
Gangotri Complex, 5th Floor, Bhadbhada Road, T. T. Nagar, BHOPAL 462003	6 27 16
Plot No. 82/83, Lewis Road, BHUBANESHWAR 751002	5 36 27
53/5 Ward No. 29, R. G. Barua Road, 5th Byelane, GUWAHATI 781003	—
5-8-56C L. N. Gupta Marg, (Nampally Station Road), HYDERABAD 500001	22 10 83
R14 Yudhister Marg, C Scheme, JAIPUR 302005	6 34 71 6 98 32
117/418B Sarvodaya Nagar, KANPUR 208005	21 68 76 21 82 92
Patliputra Industrial Estate, PATNA 800013	6 23 05
Hantex Bldg (2nd Floor), Rly Station Road, TRIVANDRUM 695001	52 27
Inspection Office (With Sale Point):	
Institution of Engineers (India) Building, 1332 Shivaji Nagar, PUNE 410005	5 24 35

*Sales Office in Bombay is at Novelty Chambers, Grant Road, Bombay 400007 89 65 28

†Sales Office in Calcutta is at 5 Chowringhee Approach, P. O. Princep Street, Calcutta 700072 27 68 00

Reprography Unit, BIS, New Delhi, India